



Discrimination of facial expressions in patients with Parkinson's disease



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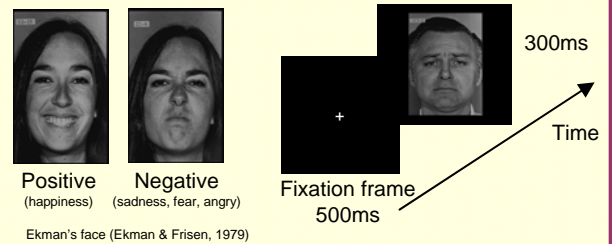
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- Previous studies suggested that patients with Parkinson's disease (PD) could not recognize negative facial stimuli correctly, but some criticized on this point.
- The possible confounded variables could be the presentation time of target faces and the motor severity of PD.
- In the present study, we adopted fast emotional discrimination task (FEDT) to investigate the performance of PD in discriminating emotional facial expressions.
- The face discrimination in FEDT was more similar to that in the real world.

- We also investigate whether PD's performance in FEDT related to the levels of their motor severity.

Fast Emotional Discrimination Task (FEDT)

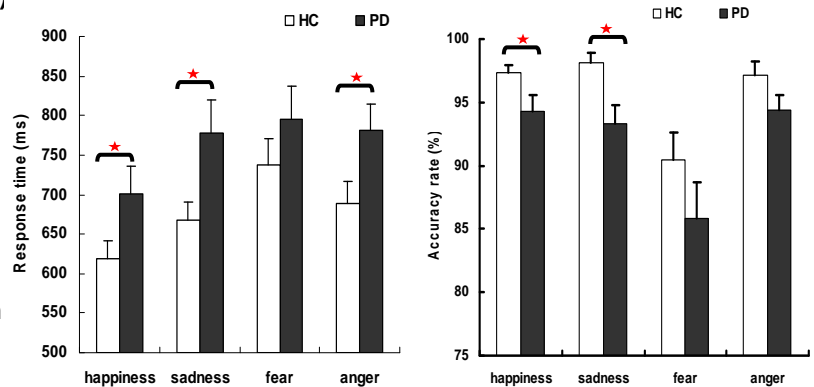


Experiment 1 (PD v.s. Healthy Control, HC)

- Participant:

	AGE	BDI-II	MMSE
PD (n=28)	61.68	11.61	27.61
HC (n=28)	57.39	2.93	28.29

- PDs discriminated happy, sad and angry faces longer than healthy controls did,
- PDs also had less accuracy in the condition of happy and sad faces compared with healthy controls.

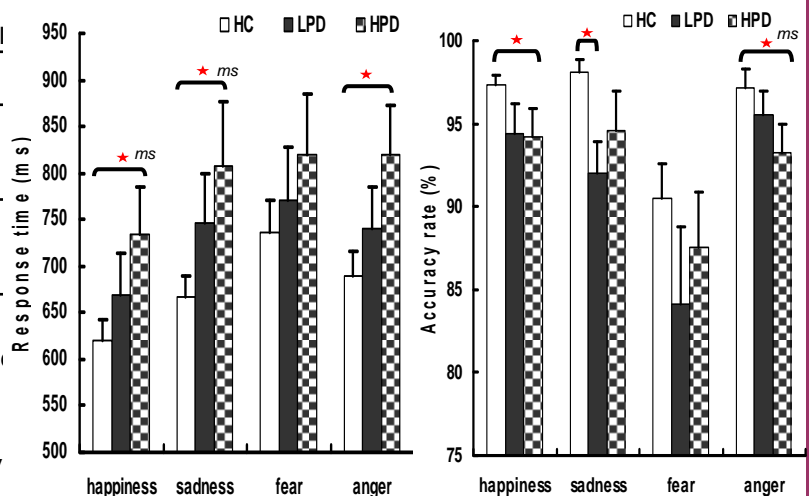


Experiment 2 (PD with different motor severities v.s. HC)

- Participant:

	AGE	BDI-II	MMSE	UPSRD III
HC (n=28)	57.39	2.93	28.29	.
PDs with lower motor score (n=14)	60.50	7.93	28.14	25.07
PDs with higher motor score (n=14)	62.86	15.29	27.07	49.71

- In the condition of sad face, PDs with lower motor severity had less accuracy than HC did.
- Compared with HC, PDs with higher motor severity responded slower to happy, sad and angry faces, and they also had less accuracy to happy and anger faces.



Discussion and Conclusion

- To our knowledge, the present study is the first one that found PDs had selective deficits in discriminating positive faces.
- The motor severity in PD had impact on discriminating facial expressions, and this ability would be getting worse with the progress of motor severity.

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